

Listing of Claims:

This listing of the claims will replace all prior versions, listings, of claims in the application:

1. (currently amended) An electrochemical cell, comprising:

a renewable active metal anode, configured for supplementation of the active metal, the an
anode comprising a first solid state lithium metal layer and a second solid state lithium metal layer
and having a thin layer of Ag, Al, Sn or other Li alloy-forming metal interposed between the first
and second lithium layers;

a cathode structure comprising an electronically conductive component, an ionically
conductive component, and a fluid oxidant;

an ionically conductive protective membrane on the first surface of the anode, the membrane
comprising,

one or more materials configured to provide a first surface chemically compatible
with the active metal of the anode in contact with the anode, and a second surface
substantially impervious to and chemically compatible with the cathode structure and in
contact with the cathode structure.

2. (previously presented) The cell of claim 1, wherein the ionically conductive protective
membrane comprises a composite, the composite comprising,

a first material component in contact with the anode that is ionically conductive and
chemically compatible with the anode; and

a second material component in contact with the first material component, the second
material being substantially impervious, ionically conductive and chemically compatible
with the first material component and the cathode structure.

3. (original) The cell of claim 1, wherein the ionic conductivity of the protective membrane is
at least 10^{-5} S/cm.
4. (withdrawn) The cell of claim 1, wherein the cathode oxidant comprises air.
5. (original) The cell of claim 1, wherein the cathode oxidant comprises water.

6. (withdrawn) The cell of claim 1, wherein the cathode oxidant comprises hydrogen peroxide.
7. (original) The cell of claim 1, wherein the protective membrane is a composite laminate.
8. (original) The cell of claim 1, wherein the protective membrane is a graded composite.
9. (currently amended) The cell of claim 1, wherein the solid state lithium metal layers of the anode are selected from the group consisting of ~~is~~ lithium or and a lithium alloy.
10. (previously presented) The cell of claim 2, wherein the first component comprises a material selected from the group consisting of a composite reaction product of lithium of the anode with one selected from the group consisting of Cu_3N , metal nitrides, metal phosphides, and metal halides, metal iodides and red phosphorus.
11. (previously presented) The cell of claim 2, wherein the first component comprises a material selected from the group consisting of Li_3N , Li_3P and LiI , LiBr , LiCl , LiF , and LiPON .
12. (original) The cell of claim 2, wherein the second component comprises a material selected from the group consisting of glassy or amorphous metal ion conductors, ceramic active metal ion conductors, and glass-ceramic active metal ion conductors.
13. (original) The cell of claim 2, wherein the second component is an ion conductive glass-ceramic having the following composition:

Composition	mol %
P_2O_5	26-55%
SiO_2	0-15%
$\text{GeO}_2 + \text{TiO}_2$	25-50%
in which GeO_2	0—50%
TiO_2	0—50%
ZrO_2	0-10%
M_2O_3	$0 < 10\%$
Al_2O_3	0-15%

Ga ₂ O ₃	0-15%
Li ₂ O	3-25%

and containing a predominant crystalline phase composed of $\text{Li}_{1+x}(\text{M}, \text{Al}, \text{Ga})_x(\text{Ge}_{1-y}\text{Ti}_y)_{2-x}(\text{PO}_4)_3$ where $X \leq 0.8$ and $0 \leq Y \leq 1.0$, and where M is an element selected from the group consisting of Nd, Sm, Eu, Gd, Tb, Dy, Ho, Er, Tm and Yb and/or and $\text{Li}_{1+x+y}\text{Q}_x\text{Ti}_{2-x}\text{Si}_y\text{P}_{3-y}\text{O}_{12}$ where $0 < X \leq 0.4$ and $0 < Y \leq 0.6$, and where Q is Al or Ga.

14-20. (canceled)

21. (previously presented) The cell of claim 1, wherein the bonding coat is Ag.

22-23. (canceled)

24. (new) The cell of claim 2, wherein the first material component comprises a composite reaction product of Li with Cu₃N.

25. (new) The cell of claim 2, wherein the first material component comprises a composite reaction product of Li with red phosphorus.

26. (new) The cell of claim 2, wherein the first material component comprising a composite reaction product of Li with PbI₂.